

suggests that selective gastric vagotomy either with antrectomy or pyloroplasty may become increasingly important in the elective surgical treatment of duodenal ulcer for those accustomed to the technique. This should not detract from the well-established value of truncal vagotomy particularly when operation is performed under emergency circumstances.

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### Antibacterial Agents to Control Infection Associated with Burns

INFECTION STILL IS THE PRIMARY cause of death in patients with extensive burns. Great strides have been made during the past decade in the topical and systemic use of antibacterial agents to treat burned patients. Antibacterials commonly used topically include mafenide (Sulfamylon®), silver nitrate, gentamicin and silver sulfadiazine. Topical agents serve only to treat burn wound sepsis and not other sources of infection such as pneumonia, phlebitis, and the urinary tract. These later infections require systemic antibiotic administration. Gentamicin and Sulfamylon used topically are effective clinically because they actively penetrate the burn wound in reasonable concentrations. Silver nitrate penetrates less well and hence is less helpful in established infections. Sulfamylon, silver nitrate, and silver sulfadiazine are effective against Gram-negative bacteria while gentamicin is equally effective against Gram-positive and Gram-negative organisms.

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### Intestinal Bypass for Morbid Obesity

ACCUMULATING EVIDENCE indicates that intestinal bypass procedures may be recommended for carefully selected massively obese patients who are unable to control their obesity problem by more conservative means. Scott et al have proposed that the bypass be accomplished by dividing the jejunum a few inches distal to the Treitz ligament and the ileum a few inches proximal to the ileocecal valve with end-to-end anastomosis of these segments. The open distal jejunum is drained by anastomosis with the transverse colon while the proximal jejunum is closed. Preliminary experience suggests that this arrangement relieves the tendency for ileal reflux frequently seen in the end-to-side type bypass introduced by Payne and DeWind. Eleven of the 12 patients in Scott's preliminary group lost weight at a satisfactory rate and had minimal problems with diarrhea. In addition there was a consistent associated reduction in the serum lipids.

The majority of these patients have significant fat accumulation in the liver before the operation, as well as other metabolic disturbances. The necessity for careful preoperative preparation and strict selection of patients must be emphasized, and close postoperative care and follow-up are essential.

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### Mediastinoscopy in Patients with Cancer of the Lung

EXPLORATION OF THE MEDIASTINUM has found a place in the evaluation of patients with carcinoma of the lung. Mediastinoscopy via the midline suprasternal route under general of local

anesthesia has proved to be the most popular approach for this kind of exploration, although limited parasternal mediastinotomy has also been utilized safely and successfully. Lymph nodes in the paratracheal and subcarinal regions may be visualized and biopsy specimens taken during mediastinoscopy. Although the procedure is potentially hazardous, mortality in a series of 9,543 cases collected by Ashbaugh was 0.09 percent and morbidity was 1.5 percent.

Mediastinoscopy does not replace other diagnostic procedures in evaluating patients with cancer of the lung. It is most useful in patients with proximal lesions in whom resectability is in doubt and least useful in patients with asymptomatic peripheral lesions. Ipsilateral positive lymph node biopsy via the mediastinoscope does not necessarily mean that the cancer is incurable, since some patients with positive mediastinal lymph nodes survive five years following pulmonary resection for carcinoma of the lung.

This is a procedure which should be part of the armamentarium of every thoracic surgeon.

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### Aggressive Approach to Diagnosis of Lung Infiltrates in the Compromised Host

X-RAY SIGNS OF LUNG DISEASE in patients with impaired resistance to infection are frequently nonspecific and may be due to either their underlying disease or infection. Corticosteroids and cytotoxic drugs alter the inflammatory response and may prevent "classical" radiological features associated with many infectious agents. The life-threatening nature of infection and the extensive differential diagnosis of lung infiltrates and cavitation in these patients are so great as

to preclude other than an aggressive approach to identify the etiology. Sputum, preferably obtained by transtracheal aspiration, should be cultured for anaerobic, and aerobic bacteria, mycobacteria and fungi; within a brief period acid fast, silver (for pneumocystis and fungi) and Gram stains should be performed. If stains are unrevealing, the patient's condition and the severity of his lung disease should dictate the necessity of either closed lung aspiration or biopsy. If either is performed, and immediate staining does not reveal a cause, open lung biopsy should be carried out.

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### Lymphocyte Tissue Culture in Transplant Surgery

THE *in vitro* RESPONSIVENESS of lymphocytes taken from transplant recipients has been the subject of a number of contradictory reports: to some extent this reflects various pitfalls in the quantitation of lymphocyte cultures, especially in a complex clinical situation. Nevertheless, it is the overall impression that when a satisfactory level of immunosuppression has been reached, the transplant patient's lymphocytes have a reduced response to phytohemagglutinin, and that a return to a normal responsiveness frequently heralds a rejection crisis.

Preceding rejection episodes there also appears to be an increased traffic in the blood of activated lymphocytes similar to that associated with vaccination or virus infection; this is reflected in an increased rate of spontaneous transformation in leukocyte cultures. The presence of activated cells in the circulation may also be detected either by counting atypical mononuclears in the peripheral blood, or by measuring the increased rate of RNA synthesis in very short-